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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

OJURONGBE, OLATUNDE S

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,678	Applicant(s) BACHER ET AL.	
	Examiner OLATUNDE S. OJURONGBE	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/28/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed on 04/28/2009 has been entered. Claims 8-18 are pending in the application.
2. Based on the amendment to the claims, the prior rejection of claims 8-17 is withdrawn

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 8-16 and 17** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 8 recites "wherein the primer is free of metal complexes". There is no sufficient support for this limitation in the originally filed application.

Dependent claims 9-15 and 17 are rejected for the same reason.

Claim 16 recites "and a continuous silicone release coating applied". There is no sufficient support for this limitation in the originally filed application.

Art Unit: 1796

5. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Uwe et al (DE 3727078)** in view of **Maruyama et al (US 4,617,239)** in further view of **Tschirner et al (US 6,211,289)**.

Regarding **claim 18**, Uwe et al teaches a silicone release on a substrate characterized in that the substrate is first treated with a primer having little release effect, and on which a silicone release is applied (abstract). This teaches applying a primer to a substrate and then applying a silicone release coating over the primer.

Uwe et al further teaches a primer composition containing polyvinyl alcohol (col.3, lines 1-8).

Uwe et al does not teach a process for the preparation of release films and coatings on a substrate comprising applying the primer of the instant claim.

Maruyama et al teaches a method of coating paper comprising applying to paper a silicon-containing modified polyvinyl alcohol agent or its saponification product (abstract).

Maruyama et al further teaches that the silicon-containing modified PVA should preferably be produced by saponifying a copolymer of a vinyl ester and a silicon-containing olefinic unsaturated monomer (col.7, lines 9-12) and that the content of silicon in the silicon-containing modified PVA is usually from 0.01 to 10 mol% and that the degree of saponification is usually 70 to 100 mol% (col.7, line 65-co1.8, line 5).

Maruyama et al further teaches that when applied to paper, the paper coating agent of the invention greatly improves the surface properties of paper, such as surface strength

Art Unit: 1796

and barrier properties and that the agent does not penetrate into paper but forms a firm uniform film on the surface layer of paper (col.9, lines 8-25).

Since both inventions of Uwe et al and Maruyama et al are directed toward paper coating, and Uwe et al teaches a primer composition containing polyvinyl alcohol, motivated by the taught advantages of the silicon-containing modified polyvinyl alcohol of Maruyama et al, it would have been obvious to one of ordinary skill in the art to have incorporated the silicon-containing modified polyvinyl alcohol of Maruyama et al into the primer composition of Uwe et al.

Modified Uwe et al does not teach the primer consisting essentially of (I) at least one silane-containing polyvinyl alcohol derived from fully or partly hydrolyzed vinyl ester copolymers, wherein a fraction of 1 to 30 mol% based on total polymer are one or more 1-alkylvinyl esters of carboxylic acids having 1 to 6 carbon atoms, wherein the alkyl radicals have 1 to 6 carbon atoms of the instant claim.

Tschirner et al teaches that aqueous solutions of copolymeric polyvinyl alcohols prepared by saponification of copolymers containing vinyl acetate and 1-alkylvinyl acetate units have an unlimited shelf life at room temperature (col.2, lines 7-9) and further teaches 1-alkylvinyl alcohol/vinyl alcohol and 1-alkylvinyl acetate/vinyl acetate in a weight ratio of from 1/99 to 40/60 (col.2, lines 41-44). Tschirner et al further teaches that suitable alkyl groups are C₁-C₄ radicals (col.2, line 26). Motivated by the advantages of copolymeric polyvinyl alcohols formed from 1-alkylvinyl acetate/vinyl acetate as taught by Tschirner et al, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used the 1-alkylvinyl acetate/vinyl

Art Unit: 1796

acetate of Tschirner et al in the saponification reaction of modified Uwe et al (see Maruyama et al, col.7, lines 9-12).

The examiner notes that degree of saponification is used interchangeably with degree of hydrolysis in the art. The examiner further notes that the method by which the silane-containing polyvinyl alcohol of the invention is obtained is a product-by-process limitation and that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. Furthermore, the examiner notes that the transitional phrase consisting essentially of limits the scope of a claim to the specified materials or steps and those that do not materially affect the basic and novel characteristic(s) of the claimed invention, For the purposes of searching for and applying prior art under U.S.C 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising."

Response to Arguments

6. Despite withdrawing the rejection of claims 8-17, the examiner notes that certain arguments of the applicants pertain to claim 18, hence, the following response is made.

Art Unit: 1796

The applicants state that the foundation coatings of the invention does not contain metal complexes. The examiner disagrees.

The composition of Example 1 of the instant application contains copper (II) acetate. Copper (II) acetate is a metal complex (see Inorganic Chemistry, page 1264), hence, the applicants have failed to show specific materials that materially affect the basic and novel characteristics of the claimed invention.

The applicants argue that chrome stearate complex release coatings have been used for a long, long time, are available from numerous sources, and at low cost and that one would not be motivated to replace these economical release coats with a more expensive product, such as a silane-modified PVA. The applicants further argue that there is no indication anywhere that a silane-modified PVA would provide the low release force necessary for the raster printed two layer release coat of Skurnia. The examiner disagrees.

Firstly, the rejection of the claim does not indicate the replacement of the chrome stearate complex of the primer composition of Uwe with the silane-modified PVA of Maruyama, rather, the rejection teaches incorporation of the silane-modified PVA of Maruyama into the primer composition of Uwe, based on the advantages of the silane-modified PVA as taught by Maruyama. Furthermore, concerning the applicants' argument about cost, the examiner notes that the fact that a combination would not be made by businessmen for economic reasons does not mean that a person of ordinary skill in the art would not make the combination because of some technological

Art Unit: 1796

incompatibility. One of ordinary skill in the art would have combined Uwe and Maruyama as explained in the rejection above.

The applicants further argue that Tschirner is not directed to the use of PVA1 as a primer, nor for any purpose whatsoever except as a precursor to polyvinyl acetals. The applicants further argue that Maruyama was first published in 1983 and that Tschirner was first published in 1998. The applicants further argue that the problems addressed by the subject invention and those addressed by Maruyama and Tschirner are completely different. The examiner disagrees.

Firstly, both references relate to the synthesis of PVA with vinyl esters as starting materials, hence, one of ordinary skill in the art would have combined both references as stated in the rejection above. Furthermore, the examiner notes that the mere age of the references is not persuasive of the unobviousness of the combination of their teachings, absent evidence that, notwithstanding knowledge of the references, the art tried and failed to solve the problem. Concerning the applicants' argument that the problems addressed by the subject invention and those addressed by Maruyama and Tschirner are completely different, the examiner notes that the fact that applicants have recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.

The applicants further argue that the present invention has achieved surprising and unexpected results. The applicants state that after seven days of storage, the silicone release coat applied over the primer coat showed a much higher scratch resistance

Art Unit: 1796

than either the silane-modified PVA1 of Maruyama or a conventional PVA1 and that this result is neither taught nor suggested by Maruyama, Tschirner, or their combination.

The examiner disagrees.

The examiner notes that whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support. In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. This is not the case with the present application because the evidence provided in the specification does not commensurate in scope with the claims it is offered to support. While the compositions compared in the specification contained a single amount of each component of the silane-modified polyvinyl alcohol, the claims are directed to a range of amounts of the components, said range is broader than the single amount of each component contained in the compositions of the comparison. Furthermore, while the claims encompass a wide range of vinyl esters, 1-alkylvinyl esters of carboxylic acids and/or silane-containing ethylenically unsaturated monomers, the compositions of the comparison contain just a single compound of each of the fore-mentioned chemical species.

Claim 18 is unpatentable over modified Uwe et al.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLATUNDE S. OJURONGBE whose telephone number is (571)270-3876. The examiner can normally be reached on Monday-Thursday, 7.15am-4.45pm, EST time, Alt Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571)272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

O.S.O.

/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796